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2848-56-PCT.ST25.txt
SEQUENCE LISTING

<110> Hutton, John C.
O'Brien, Richard
Davidson, Howard
Hackl, Seija

<120> Use of Islet Glucose-6-Phosphatase Related Protein as a Diagnostic Tool and Therapeutic Target for Autoimmune Diabetes

<130> 2848-56-PCT

<150> US 60/505317
<151> 2003-09-22

<160> 7

<170> PatentIn version 3.1

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aag gac tac cga gct tac act ttt cta aat ttt atg tcc aat gtt	96
Lys Asp Tyr Arg Ala Tyr Tyr Thr Phe Leu Asn Phe Met Ser Asn Val	
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gga gac ccc agg aat atc ttt ttc att tat ttt cca ctt tgt ttt caa	144
Gly Asp Pro Arg Asn Ile Phe Phe Ile Tyr Phe Pro Leu Cys Phe Gln	
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ttt aat cag aca gtt gga acc aag atg ata tgg gta gca gtc att ggg	192
Phe Asn Gln Thr Val Gly Thr Lys Met Ile Trp Val Ala Val Ile Gly	
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gat tgg tta aat ctt ata ttt aaa tgg ata tta ttt ggt cat cga cct	240
Asp Trp Leu Asn Leu Ile Phe Lys Trp Ile Leu Phe Gly His Arg Pro	
65 70 75 80	
tac tgg tgg gtc caa gaa act cag att tac cca aat cac tca agt cca	288
Tyr Trp Trp Val Gln Glu Thr Gln Ile Tyr Pro Asn His Ser Ser Pro	
85 90 95	
tgc ctt gaa cag ttc cct act aca tgt gaa aca ggt cca gga agt cca	336
Cys Leu Glu Gln Phe Pro Thr Thr Cys Glu Thr Gly Pro Gly Ser Pro	
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tct ggc cat gca atg ggc gca tcc tgt gtc tgg tat gtc atg gta acc	384
Ser Gly His Ala Met Gly Ala Ser Cys Val Trp Tyr Val Met Val Thr	
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Leu His Arg Leu Thr Trp Ser Phe Leu Trp Ser Val Phe Trp Leu Ile			
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caa atc agt gtc tgc atc tcc aga gta ttc ata gca aca cat ttt cct			528
Gln Ile Ser Val Cys Ile Ser Arg Val Phe Ile Ala Thr His Phe Pro			
165	170	175	
cat caa gtt att ctt gga gta att ggt ggc atg ctg gtg gca gag gcc			576
His Gln Val Ile Leu Gly Val Ile Gly Gly Met Leu Val Ala Glu Ala			
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Lys Thr Asn Leu Phe Leu Phe Leu Phe Ala Val Gly Phe Tyr Leu Leu			
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ctt agg gtg ctc aac att gac ctg ctg tgg tcc gtg ccc ata gcc aaa			720
Leu Arg Val Leu Asn Ile Asp Leu Leu Trp Ser Val Pro Ile Ala Lys			
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aag tgg tgt gct aac ccc gac tgg atc cac att gac acc acg cct ttt			768
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Ala Gly Leu Val Arg Asn Leu Gly Val Leu Phe Gly Leu Gly Phe Ala			
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Tyr Val Leu Ser Phe Cys Lys Ser Ala Ser Ile Pro Leu Thr Val Val			
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Lys Ser Gln			
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35 40 45Phe Asn Gln Thr Val Gly Thr Lys Met Ile Trp Val Ala Val Ile Gly
50 55 60Asp Trp Leu Asn Leu Ile Phe Lys Trp Ile Leu Phe Gly His Arg Pro
65 70 75 80Tyr Trp Trp Val Gln Glu Thr Gln Ile Tyr Pro Asn His Ser Ser Pro
85 90 95Cys Leu Glu Gln Phe Pro Thr Thr Cys Glu Thr Gly Pro Gly Ser Pro
100 105 110Ser Gly His Ala Met Gly Ala Ser Cys Val Trp Tyr Val Met Val Thr
115 120 125Ala Ala Leu Ser His Thr Val Cys Gly Met Asp Lys Phe Ser Ile Thr
130 135 140Leu His Arg Leu Thr Trp Ser Phe Leu Trp Ser Val Phe Trp Leu Ile
145 150 155 160Gln Ile Ser Val Cys Ile Ser Arg Val Phe Ile Ala Thr His Phe Pro
165 170 175His Gln Val Ile Leu Gly Val Ile Gly Gly Met Leu Val Ala Glu Ala
180 185 190Phe Glu His Thr Pro Gly Ile Gln Thr Ala Ser Leu Gly Thr Tyr Leu
195 200 205Lys Thr Asn Leu Phe Leu Phe Leu Phe Ala Val Gly Phe Tyr Leu Leu
210 215 220Leu Arg Val Leu Asn Ile Asp Leu Leu Trp Ser Val Pro Ile Ala Lys
225 230 235 240

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Lys Trp Cys Ala Asn Pro Asp Trp Ile His Ile Asp Thr Thr Pro Phe
245 250 255

Ala Gly Leu Val Arg Asn Leu Gly Val Leu Phe Gly Leu Gly Phe Ala
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Ile Asn Ser Glu Met Phe Leu Leu Ser Cys Arg Gly Gly Asn Asn Tyr
275 280 285

Thr Leu Ser Phe Arg Leu Leu Cys Ala Leu Thr Ser Leu Thr Ile Leu
290 295 300

Gln Leu Tyr His Phe Leu Gln Ile Pro Thr His Glu Glu His Leu Phe
305 310 315 320

Tyr Val Leu Ser Phe Cys Lys Ser Ala Ser Ile Pro Leu Thr Val Val
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Lys Ser Gln
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Gln Glu Asp Tyr Arg Thr Tyr Gly Phe Leu Asn Phe Met Ser Asn
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gtt gga gac ccc cga aat atc ttt tct att tac ttc cca ctt tgg ttt 203
Val Gly Asp Pro Arg Asn Ile Phe Ser Ile Tyr Phe Pro Leu Trp Phe
35 40 45

cag ttg aat cag aat gtt gga acc aag atg atc tgg gta gcg gtc ata 251
Gln Leu Asn Gln Asn Val Gly Thr Lys Met Ile Trp Val Ala Val Ile
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ggg gac tgg ttc aat ctc ata ttt aaa tgg ata ttg ttt ggc cat cgt 299

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Pro Cys Leu Glu Gln Phe Pro Thr Thr Cys Glu Thr Gly Pro Gly Ser			
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cca tct ggc cac gca atg ggc tca tcg tgc gtc tgg tat gtc atg gta			443
Pro Ser Gly His Ala Met Gly Ser Ser Cys Val Trp Tyr Val Met Val			
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aca gct gcc cta agc tac acc atc agc cggt atg gag gag tcc tct gtc			491
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act ctg cac aga ctg acc tgg tcc ttt ctg tgg agt gtt ttc tgg ttg			539
Thr Leu His Arg Leu Thr Trp Ser Phe Leu Trp Ser Val Phe Trp Leu			
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Pro His Gln Val Ile Leu Gly Val Ile Gly Gly Met Leu Val Ala Glu			
180	185		190
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Ala Phe Glu His Thr Pro Gly Val His Met Ala Ser Leu Ser Val Tyr			
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225	230		235
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255			
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Ala Ile Asn Ser Glu Met Phe Leu Arg Ser Cys Gln Gly Glu Asn Gly			
275	280		285
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Thr Lys Pro Ser Phe Arg Leu Leu Cys Ala Leu Thr Ser Leu Thr Thr			
290	295		300
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Met Gln Leu Tyr Arg Phe Ile Lys Ile Pro Thr His Ala Glu Pro Leu			
305	310		315

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ctgtttcct caatagagcc acagcacaga gactgggagc gtctctacag aggtcacacc atgatgacca aaggcctgc tccaccaca gacatgtta gtctgcttc caagtggcat ttaaaaaata acagtattta accagaaaat ccataatttc ttgacaaaac tgacaatacg gtaacatatg agagatggta taacccatgt aaagacagt gacagggct ggatgctac attccagttt gcagaaaagac tccttcta atcatgtt agcagtcaac aaaacccccca ggagctgatg ttcttatcat cttaaagtct ggctacttc ggctcctgtg gaccacttag aagtgaccac ggtctacttt tacttttagg agtcaattct ttcaaaattc tcatgtatca gataaggaaa tagaggtttt ttcagatcaa gtaacttgac tgtaatagtg cagggttgaa accagagttt gaacacaagg cttctgatac atatatctct ataagaatgc ttctttctt tcttttagg gagttaaaaaa aaaagagcaa atgcatgtat ttaaaatcta tgtttgcac ctaaaacacc catctttca gaaatggcat tggatgcta cattctgctt gactttagct cagagtacag tgtctttcc aggctagcaa tggctgtata tatttcaata aacgctgctg aaaacaaccc actg	1227 1287 1347 1407 1467 1527 1587 1647 1707 1767 1827 1887 1901

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35 40 45

Leu Asn Gln Asn Val Gly Thr Lys Met Ile Trp Val Ala Val Ile Gly
50 55 60

Asp Trp Phe Asn Leu Ile Phe Lys Trp Ile Leu Phe Gly His Arg Pro
Page 6

65

70

75

80

Tyr Trp Trp Ile Gln Glu Thr Glu Ile Tyr Pro Asn His Ser Ser Pro
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Cys Leu Glu Gln Phe Pro Thr Thr Cys Glu Thr Gly Pro Gly Ser Pro
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Ser Gly His Ala Met Gly Ser Ser Cys Val Trp Tyr Val Met Val Thr
115 120 125

Ala Ala Leu Ser Tyr Thr Ile Ser Arg Met Glu Glu Ser Ser Val Thr
130 135 140

Leu His Arg Leu Thr Trp Ser Phe Leu Trp Ser Val Phe Trp Leu Ile
145 150 155 160

Gln Ile Ser Val Cys Ile Ser Arg Val Phe Ile Ala Thr His Phe Pro
165 170 175

His Gln Val Ile Leu Gly Val Ile Gly Gly Met Leu Val Ala Glu Ala
180 185 190

Phe Glu His Thr Pro Gly Val His Met Ala Ser Leu Ser Val Tyr Leu
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Lys Thr Asn Val Phe Leu Phe Leu Phe Ala Leu Gly Phe Tyr Leu Leu
210 215 220

Leu Arg Leu Phe Gly Ile Asp Leu Leu Trp Ser Val Pro Ile Ala Lys
225 230 235 240

Lys Trp Cys Ala Asn Pro Asp Trp Ile His Ile Asp Ser Thr Pro Phe
245 250 255

Ala Gly Leu Val Arg Asn Leu Gly Val Leu Phe Gly Leu Gly Phe Ala
260 265 270

Ile Asn Ser Glu Met Phe Leu Arg Ser Cys Gln Gly Glu Asn Gly Thr
275 280 285

Lys Pro Ser Phe Arg Leu Leu Cys Ala Leu Thr Ser Leu Thr Thr Met
290 295 300

Gln Leu Tyr Arg Phe Ile Lys Ile Pro Thr His Ala Glu Pro Leu Phe
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2848-56-PCT.ST25.txt

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